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ABSTRACT

Place of residence or location of school, in terms of rural or urban, have been considered to be related to students' educational and occupational aspirations in many studies. Results of this study indicate that urban students had higher educational and occupational aspirations than rural students; however, rural schools seemed to emphasize preparation for college attendance more than urban schools. Most rural students planned on entering urban occupations. A large number of both rural and urban students planned to major in business. A majority of urban students' parents were in business-related occupations, a background variable that may have influenced students' career choices. However, the majority of rural students' parents were in lower-status occupations. Parents of both groups also had a significant influence of childrens' educational and occupational aspirations. Rural students had realistic expectations about starting salaries and occupational opportunities. Both groups of students seemed confident about their ability to realize their aspirations. Results suggest that parents need to be informed about career opportunities and to be constantly involved in the educational process. This paper contains 18 references. (Author/DHP)

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Educational and Occupational Aspirations of Ohio Rural And Urban Twelfth-Grade Students

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Introduction

The place of residence or location of school, in terms of rural or urban, have been considered to be a variable related to educational and occupational aspirations in many studies (MacBrayne, 1987). There were conflicting results from previous comparisons of rural and urban students. Slocum (1956), Middleton & Grigg (1959), Schwarzweller (1960), Sewell (1963) found that rural youth generally have lower educational and occupational aspirations than urban youths. Nelson (1971), in studying high school juniors, indicated that the rural community structure appears to contribute to the low college aspirations of rural students below the level of urban students. However, Cosby (1978) and Coleman (1976) found different results. Cosby (1978) found that rural youth had high educational and occupational aspirations. Coleman (1976), in a longitudinal study of rural-urban youth, found some interesting results. In the first sample in 1969, Coleman found very little differences and very high educational and occupational aspiration among rural youth. However by 1975, as the youths became older, the aspirations of the rural youth tended to be lower than urban youth.

The study of rural youth in Ohio was initially started by McCracken in 1985. Since then, results of the study were reported in Odell (1986) and Fails (1989). Special attention was given to developing a standard criteria for defining what is meant by rural. According to Odell (1986), the study of the impact of the unique characteristics of rural schools on the educational and occupational aspirations of rural youth have not been widespread.

This study was an extension of Odell (1986) and Fails (1989). Odell (1986) stated and Fails (1989) reemphasized, that additional attempts should be made in defining the rural nature of schools in Ohio. The characteristics that were considered to be rural should be compared with urban and suburban schools in an attempt to clarify further the definitions of rural schools in Ohio. Furthermore, the relationship between the location of school, in terms of rural or urban, and educational and occupational aspirations need to be investigated further by comparing rural, suburban, and urban students (Odell, 1986).

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Fails (1989), in a followup study to Odell's, also made the same recommendation.

Parks (1984) supported the need for this study by stating, " . . . when compared to urban and suburban students and schools, the rural counterparts have been little publicized. The lack of attention to rural population in national data collection efforts has made it especially difficult for interested researchers to say accurate things about the conditions of rural education (p. 1)."

Purpose and Objectives

The major purpose of this study was to describe the educational and occupational aspirations of rural and urban twelfth grade students. The specific objectives for this study included: (1) To describe the students' personal background characteristics, and their aspirations; and (2) the difference existing between the educational and occupational aspirations of rural and urban twelfth-grade students.

Procedures

Population and Sample

Multi-stage sampling was used to identify the population and select the sample for the study. Public secondary high schools located in Ohio were the clusters used to identify and define the population. Multi-stage sampling was used because the targeted population was very large and spread out. This sampling method provided a feasible means for selecting a sample.

The target population consisted of rural and urban public secondary schools. The rural population consisted of 71 Ohio public secondary schools. The rural school criteria used in an earlier study by Odell (1986) was followed. The criteria for a rural school in Ohio included: (1) public school located in a county outside the Standard Metropolitan Statistical Area as defined by the 1980 Ohio Population Census; (2) public school located in county with a total population under 40,000, as defined by the Ohio Population Census; and, (3) the average enrollment per grade level did not exceed 125 students. The urban population consisted of 114 public secondary schools. The urban schools population criteria as developed by McCracken (1988) included: (1) public schools in a county inside a Standard Metropolitan Statistical Area (SMSA), as defined by the Ohio Population Census; (2) public schools located in a county with a total population greater than 200,000, as defined by the Ohio Population Census, and, (3) public schools with an average class size of more than 300 students.

The frame for the rural and urban secondary school was from the 1987-1988 Ohio Educational Directory. Sampling of the 71 rural schools was done using stratified and simple random sampling. The four rural schools randomly selected and stratified in the 1985 staff study by McCracken and Odell were

included as part of the sample. Six additional rural schools were randomly selected without regard to stratification for a total sample of 10 rural schools. The 114 urban schools were sampled using simple random sampling. A sample of ten urban high schools was randomly selected. The accessibility of urban high schools forced the use of the alternate list of 10 additional urban high schools. The accessible urban sample size was five of 20 schools. The participating urban schools consisted of three urban and two suburban high schools.

Subject Selection

In each rural and urban high school selected, the twelfth-grade students were the subjects. All respondents were enrolled in the 1988-1989 school year.

The participating rural high school senior classes were small, ranging from 40 to 125 seniors. Representation of the rural schools was made by a census of the senior class.

In each urban high school, the urban senior class was randomly selected using intact classrooms. A minimum of at least half of the entire twelfth-grade class was used to get a sufficient number of subjects for comparison with the rural sample. Courses such as senior English or senior American government class were usually selected as the sample group. The courses selected contained only twelfth-grade students.

Research Design

The descriptive survey method was used to collect the data for describing the characteristics of the Ohio public secondary schools and twelfth grade students.

Instrumentation

The questionnaire used the same questions as in the previous rural school studies conducted by McCracken and Odell in 1985 and McCracken and Fails in 1988.

The Student Information Questionnaire (SIQ) provided information about the background characteristics of students in the urban and rural high schools. Also, the SIQ obtained information about each student's educational and occupational aspirations, as well as personal and family background characteristics.

Content and face validity was established with the use of a panel of experts in the Ohio State University Department of Agricultural Education, former school officials, and teachers. The reliability of the SIQ was tested and reported by Odell (1986). A test-retest reliability coefficient of .84 was reported.

Data Collection

The data for this study was collected during March-May 1989. An introductory letter was mailed to the superintendent for the selected rural and urban schools in Ohio explaining the purpose of the study and informing them that they would be contacted by

phone. The phone call to the superintendents or principals was used to obtain permission to include the school in the study and to explain the research and procedures that would be used.

The questionnaires were distributed by the researcher to each school with written instructions. Data collection procedures were discussed with school officials and the principal. Written instructions for data collection were provided. A box to hold the questionnaires and stamps were provided to mail the information requested. The SIQs were administered by the school officials under the supervision of the principal. The twelfth-grade students in the 15 rural and urban secondary schools who were present on the day the data were collected and who had returned parental permission forms were administered the SIQ. A total of 529 rural and 718 urban twelfth-grade students completed questionnaires. Student numbers were used for confidentiality in dealing with information from student school records and were placed on each SIQ before being administered.

Data Analysis

Descriptive statistics such as frequencies, percentages, measures of central tendency, and variability were used to organize and summarize the data. T-test and cross-tabulations were used to test for differences between rural and urban twelfth-grade students. T-test were used for data measured at the interval level and cross-tabulations and chi-square were used for data measured at the nominal and ordinal level. Test of significance were at the .05 alpha level.

Results

Student Personal Background Characteristics

The personal background characteristics of students have a persistent effect on aspirations (Iadicola, 1980; Bratcher, 1982). Also, Farmer (1985), studying career and achievement motivation, stated that many variables were found by previous researchers to influence the career choices and achievement levels of most persons. Since this study is a expansion of the earlier studies, efforts were made to include the same variables in the comparison of rural and urban twelfth-grade students. The differences in the personal background characteristics of rural and urban students were summarized in Table 1.

Ethnic Background

Approximately 81% of the all the urban and rural students were White. From the rural area, over 94% of the students responding were White. Native Americans were the next largest group with about 3%. Among urban students, over 72% of the students were white. The next largest group was Afro-Americans or Blacks, over 22%.

There was a significant difference between rural and urban areas in the number of Caucasians (White) and non-white ethnic

backgrounds. The greater proportion of non-white students was from urban areas.

Program Enrollment

Almost 81% of rural students were enrolled in academic and general programs. About 18% were enrolled in vocational programs.

Over 73% of the urban students were enrolled in academic and general programs. About 27% were enrolled in vocational programs.

There were significant differences between urban and rural students in the proportion who enrolled in academic and general programs versus those who enrolled in vocational programs. A greater proportion of urban students were enrolled in vocational programs. About 81% of the rural students enrolled in academic or general programs as compared to about 73% of the urban students.

Academic Ability

There were significant differences in the specific levels of academic ability between the rural and urban students. The mean grade point average for rural students was higher than for urban students.

Socioeconomic Status

The family socioeconomic status of the student was reported based on the students' father and mother occupations. The parent's occupations were assigned a socioeconomic status index developed by Stevens and Cho (1985). The status index developed by Stevens and Cho was the updated version of Duncan's socioeconomic status index developed in 1961. The updated index, similar to Duncan, assigned values of 0 (low status) through 96 (high status) to occupations to determine the level of socioeconomic status of an occupation.

There was a limitation in the socioeconomic index when representing the occupations of mothers. An index for homemakers was not included which presented a non-representative mean status score for mothers. The researcher used the status score of 20.68 assigned to homemakers by Fails (1989). The socioeconomic status level of the student was based on the father's occupation.

In the rural students' family socioeconomic index, the mean occupational status index was 30.8 for fathers. Over 28% of the mothers were reported as homemakers.

Among urban students, the mean family socioeconomic status index was 45.0 for fathers. Over 13% of the urban mothers were reported as homemakers

There were significant differences between the rural and urban family socioeconomic status.

Parent's Educational Attainment

According to Odell (1986), the educational attainment of the parents have generally been used to determine the student's

family socioeconomic status. Also, parent's educational level have been used to understand the educational and occupational choices of students. Among rural parents, over 51% of the fathers and over 58% of the mothers were reported as achieving a high school level of education. Almost 14% of the fathers and 7% of the mothers have an educational level less than high school. The reported educational levels of rural fathers and mothers with four or more years of college education were over 13% and 11%, respectively.

For urban parents, over 31% of the fathers and 40% of the mothers have attained only a high school education. The proportion of fathers and mothers with four or more years of college education was 37% and 30%, respectively. The fathers and mothers with less than a high school education was under 5% and over 4%, respectively.

There was a significant difference in the educational attainment of rural and urban parents. Urban parents achieved a higher educational level than rural parents.

Parental Discussions

The parental expectations of students have generally been known to influence the career choices of students (Odell, 1986). Odell examined parental expectations by the amount of discussions the students have with their parents and whether the parent's have expectations to attend college.

There were significant differences between rural and urban students in the amount of discussions that took place between parents and students about educational plans. A greater proportion of urban students, over 86%, discussed their plans for college when compared to 73% of the rural students. A greater proportions of rural students, under 17%, have little or no discussion about their college plans as compared to urban students, under 13%.

Parental Expectations

There was significant difference between the urban and rural students' parental expectations to attend college. A greater percentage of the urban students, over 74%, have parental expectations to attend college when compared to rural students, under 61%.

Number of Siblings

Blau and Duncan (1967) noted that the size of the family affects the career choices of students. Odell (1986) mentioned that there was limited research on the size of the family relative to the occupational and educational aspirations of students.

There was significant difference in the number of siblings between the rural and urban twelfth grade students. The mean number of siblings for rural students was 2.8 and for urban students was 2.

Educational and Occupational Aspirations of Ohio Rural and Urban Twelfth-Grade Students Studied

The measures of educational and occupational aspirations were consistent with the measures used in previous studies conducted in Ohio, specifically Odell (1986) and Fails (1989). The differences in the educational and occupational aspirations of rural and urban students were summarized in Table 2.

Planned Area of Study

There was significant difference between the rural and urban students' planned area of study. Rural students chose business first followed by the following areas in the order of frequency; health sciences, engineering, education, arts, and sciences, respectively. The urban students also chose business but then, engineering, sciences, arts, social sciences, health sciences, and education, respectively.

Plans for Advanced Education

There was significant difference between the urban and rural students on their plans for advanced education. A greater percentage of urban students planned on going to college, over 84% as compared to rural students with over 73%. A greater percentage of rural students did not plan on advanced education, over 11%, as compared to urban students with about 6%. Also, a higher proportion of rural student were not sure of their plans.

Type of Advanced Education Planned

There was significant difference in the type of planned advanced education being pursued by urban and rural students. A greater percentage of the urban students, over 65%, planned on attending four-year colleges and universities as compared to rural students, over 47%. A greater percentage of the rural students planned on attending technical colleges, under 30%, as compared to urban students, over 15%. A greater proportion of rural students, over 7%, did not plan on attending college as compared to urban students, over 3%.

When Advanced Education Would Begin

There was significant difference on when urban and rural twelfth-grade students planned on pursuing their advanced education. A higher percentage of urban students, over 69%, planned on pursuing their educational aspirations immediately after high school as compared to rural students, under 62%. A greater proportion of the rural students, about 6%, planned on pursuing their educational aspirations after military service as compared to urban students, under 5%. Also more rural students, over 10%, planned on working a few years before advanced education as compared to urban students, over 9%. Also more rural students, under 7%, did not planned on attending college as compared to urban students, under 4%.

Rural and Urban Twelfth-Grade Students Occupational Aspirations

Student Occupational Choices

The occupational choices of the rural and urban twelfth-grade students were classified into (1) the occupation the student perceived as the most idealistic occupational choice, and (2) the occupation the students perceived as the most realistic occupational choice. The occupations the students selected were assigned an index based on the updated version of Duncan's Socioeconomic Status Index (SEI) developed by Stevens and Cho (1985). The status index assigns values of 0 (low status) through 96 (high status) to occupations to determine a status of an occupation.

There were significant differences in the idealistic and realistic occupational choices of urban and rural students. The mean value of the idealistic occupational index chosen by rural student was 57.98 as compared to a mean index of 60.72 chosen by urban students. The mean value of the realistic occupational index chosen by rural student was 54.01 as compared to a index of 57.35 chosen by urban students. The urban students tend to select occupational choices that were higher than rural students.

Income Expected

There was significant difference between the income expectations of rural and urban twelfth-grade students. A greater proportion of rural students, about 71%, expected an income below $25,000 during the first year of work as compared to urban students, about 60%. A greater proportion of urban students, about 21%, expected an income over $30,000 as compared to rural students, about 14%.

Variables on which rural and urban students were similar include: gender, extra-curricular involvement, surety of employment, when occupational choice was made, and military service plans.

Summary and Conclusions

The findings seemed to be consistent with earlier studies that urban students have higher educational and occupational aspirations than rural students. However, the rural schools studied seemed to emphasized preparation for college attendance. Most rural students planned on entering occupations that are not present in rural communities.

A very high number of rural and urban students planned to major in business which indicated a large number of students planning on working in the business world or become self-enterprising. Among urban students, a majority of the parents' occupations were in business related occupations which may have influenced the career choices of their children. However, among the rural students, the majority of the parents' were in

occupations that were considered to be low status.

The expected salary of rural students in the first year of their employment seemed to be much more realistic than the urban students. The students seemed to be aware of the occupational opportunities available and also the income expected. However, there were also a large number of rural and urban students that seemed to be aware of occupational opportunities but were not informed about the income aspects of employment. The urban and rural students seemed very sure about the realization of their employment.

The parents of both rural and urban students have a significant influence on the educational and occupational aspirations of their children. An implication from the findings showed that parents need to be constantly involved in the educational process of the student. The parents also need to be informed about career opportunities available to their children so they could discuss and help the students become aware of what the opportunities entail.

Table 1

Rural-Urban Comparisons on Personal Background Characteristics of Ohio's Twelfth Grade Students Studied

Variables	School Location		Probability
	Rural	Urban	
Gender			
Female	51.0%	50.8%	$p > .05$[1]
Male	49.0%	49.2%	
Ethnic Background			
White	94.1%	72.1%	$p < .05$[1]
Non-White	5.9%	27.9%	
Program Curriculum			
Academic	58.0%	64.5%	$p < .05$[1]
General	22.9%	8.8%	
Vocational	19.1%	26.7%	
Academic Ability	2.64	2.54	$p < .05$[2]
Extra-Curricular Activity	3.6	3.7	$p > .05$[2]
Socioeconomic Status	30.8	45.0	$p < .05$[2]
Fathers' Educational Attainment			
Less than high school	13.7%	4.9%	$p < .05$[1]
High school	51.3%	31.4%	
Bus./technical school	8.8%	8.1%	
Junior college	5.9%	7.7%	

(Table continued)

Variables	School Location		Probability
	Rural	Urban	
Four year college	9.5%	20.1%	
Advanced degree	4.0%	17.2%	
Mothers' Educational Attainment			
Less than high school	7.1%	4.2%	$p < .05^1$
High school	58.3%	40.4%	
Bus./technical school	11.1%	10.1%	
Junior college	5.5%	10.1%	
Four year college	8.4%	20.9%	
Advanced degree	2.9%	9.0%	
Parental Discussions			
Discussed plans	94.1%	97.6%	$p < .05^1$
No discussions	5.9%	2.4%	
Parental Expectations			
Yes	60.8%	74.3%	$p < .05^1$
No	22.7%	15.4%	
Not sure	16.5%	10.3%	
Number of Siblings	2.8	2.1	$p < .05^2$

Note. Test of Significance. 1 = Chi-square; 2 = T-test.

Table 2

Rural-Urban Comparisons on Educational and Occupational Aspirations of Ohio's Twelfth Grade Students Studied

Variables	School Location		Probability
	Rural	Urban	
Area of Study			
Agriculture	3.1%	0.7%	$p < .05$[1]
Arts	5.4%	7.9%	
Sciences	4.4%	8.5%	
Humanities	2.3%	2.1%	
Mathematics	3.3%	4.1%	
Social Sciences	3.3%	7.3%	
Education	9.2%	6.5%	
Engineering	12.1%	10.3%	
Health Sciences	13.1%	6.9%	
Business	34.7%	41.5%	
Plans for Advanced Education			
Will attend college	73.5%	84.3%	$p < .05$[1]
Will not attend college	11.3%	6.0%	
Not sure	15.1%	9.7%	
Type of Planned Advanced Education			
Four year college	47.2%	65.1%	$p < .05$[1]
Technical college	29.7%	15.4%	

(Table continued)

Variables	School Location: Rural	School Location: Urban	Probability
Junior college	5.1%	7.1%	
Do not know	10.8%	8.8%	
Don't plan to attend	7.2%	3.5%	
When Advanced Eduction Would Begin			
After high school	61.6%	69.5%	$p < .05$[1]
After military service	5.9%	4.6%	
After working few years	10.4%	9.5%	
No definite plans	15.5%	12.7%	
Don't plan to attend	6.6%	3.6%	
Idealistic Occupation	58.0	60.7	$p < .05$[2]
Realistic Occupation	54.0	57.3	$p < .05$[2]
Expected Income			
less than $15,000	14.7%	10.2%	$p < .05$[2]
15,000-19,999	30.9%	24.9%	
20,000-24,999	27.1%	25.8%	
25,000-29,999	13.2%	17.8%	
30,000-34,999	8.2%	9.6%	
Over $35,000	5.9%	11.7%	
Surety of Employment			
Sure	63.0%	63.6%	$p > .05$[1]
Unsure	37.1%	36.4%	

(Table continued)

Variables	School Location		Probability
	Rural	Urban	
Time When Occupational Choice Was Made			
Have not decided	5.5%	5.6%	$p > .05^1$
Prior to sixth grade	3.6%	6.1%	
Seventh or eighth grade	6.3%	7.0%	
Ninth or tenth grade	23.3%	26.0%	
Eleventh or twelfth grade	61.3%	55.3%	
Military Service Plans			
Will enter	11.4%	9.6%	$p > .05^1$
Will not enter	78.7%	83.1%	
Not sure	9.8%	7.3%	

Note. Test of Significance. 1 = Chi-square; 2 = T-test.

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